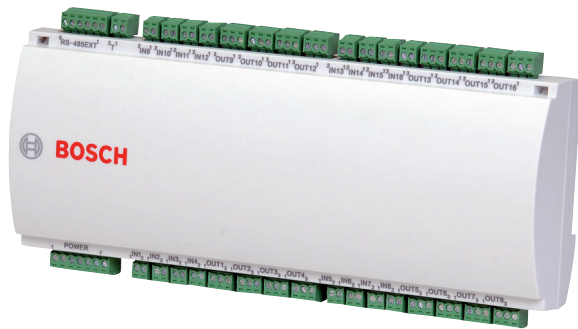




# AMC2 - Input/Output Extension Boards



- ▶ RS485 connection to the AMC2 controller
- ▶ Three models available one with 8 inputs & 8 outputs, one with 16 inputs & 16 outputs, and one with 16 inputs
- ▶ Status of inputs and outputs shows on AMC2 LCD display
- ▶ Transfer rate to EXT interface (RS485): 9,6 kBit/sec
- ▶ The AMC2 Extensionboards can be supplied with the PBC-60 power supply unit with integrated UPS.

The AMC2 16I-16O-EXT, the AMC2 16I-EXT and/or the AMC2 8I-8O-EXT extension boards can only be used with the AMC2 access controller and provides additional input and output contacts.

The AMC2 controller has eight input and eight output signals. The AMC2 determines the door status (open or closed) via the analog input signals. The relay outputs can be used to activate locking mechanisms, for example.

If there are not enough contacts available on the AMC2 to transfer the necessary signals, up to three AMC2 xl-xO-EXT units can be connected to provide additional inputs and outputs.

**Note** Systems with **Access Personal Edition** Software can only connect one I/O-Extension to an AMC2 Controller.

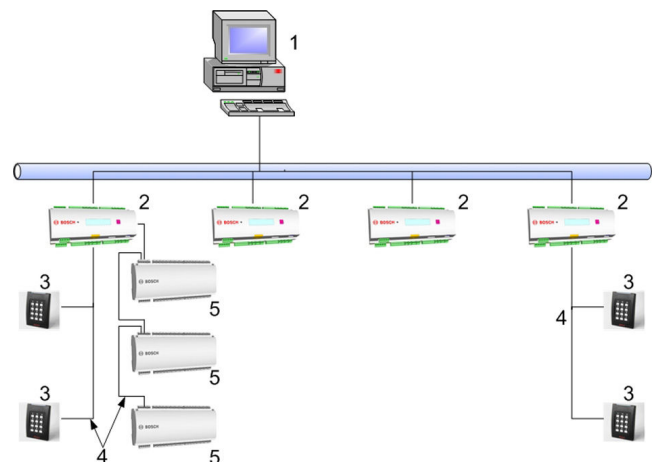
The electronics are located in a plastic housing, similar to the one on the AMC2 controller.

The AMC2 16I-16O-EXT has 16 analog inputs and 16 relay outputs. It receives door status signals via the inputs and can authorize door releases or send messages to external surveillance systems via the outputs.

Reduced versions of the extension board are also obtainable to make full use of the available signals. The AMC2 8I-8O-EXT module has eight input and eight output signals. The AMC2 16I-EXT has 16 analog inputs.

## System Overview

The AMC2 xxx-EXT is integrated into the system via the AMC2 controller.



1 = Host computer

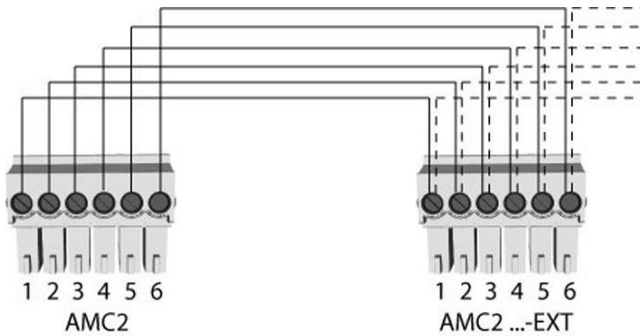
2 = AMC2

3 = Card reader

4 = Communication and power supply

5 = AMC2 xxx-EXT

In the default configuration, the connection to the AMC2 is established via the RS485 interface.



### Installation/Configuration Notes

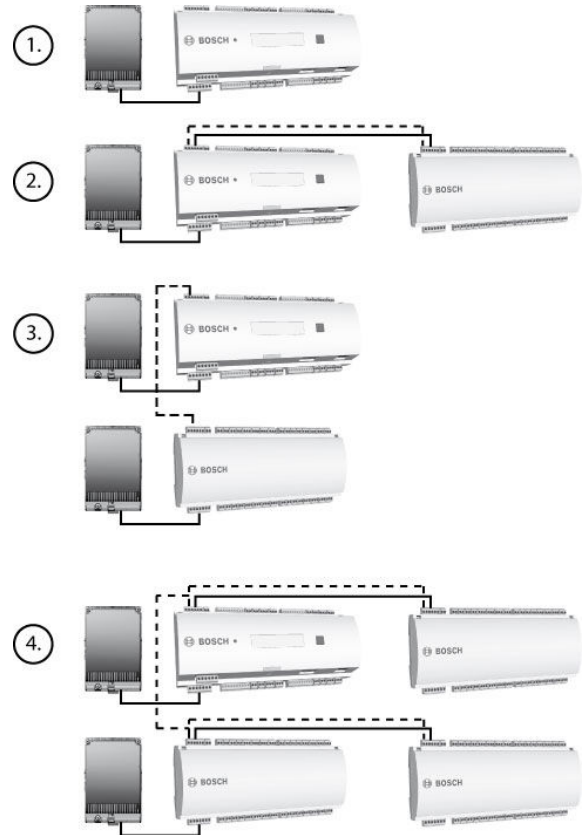
Up to three extension boards can be connected to one AMC2 controller; this provides a maximum of 56 input and output signals for configuration with the AMC2 signals.

For a system configuration the AMC2 16I-16O-EXT, AMC2 16I-EXT, and AMC2 8I-8O-EXT can also be used in combination, e.g. two AMC2 16I-16O-EXTs and one AMC2 8I-8O-EXT – but the maximum number of modules that can be connected is also restricted to three per AMC2 controller.

**Note** Systems with **Access Personal Edition** Software can only connect one I/O-Extension to an AMC2 Controller.

An AMC2 16I-16O-EXT can only provide signals for the entrances of the AMC2 controller to which it is connected. It is not possible to transmit to another AMC2.

#### Configuration examples:



*Solid lines: Power supply*  
*Dotted lines: Data lines*

1. AMC2 with power supply.
2. Power and data are supplied to the AMC2 xxx-EXT via the AMC2.
3. The AMC2 xxx-EXT with its own power supply receives data from the AMC2.
4. The first AMC2 xxx-EXT is supplied by the AMC2 - the second has its own power supply and a connection to the third. All AMC2 xxx-EXTs receive their data from the AMC2.

#### Power supply

An external power supply (10 to 30 V DC) for the AMC2 is connected to the first (positive) and third pin (negative).

When using an uninterruptible power supply (UPS), the relevant UPS output relay is connected to the pins

- 4 and 7 for alternating current (AC)
- 5 and 7 for the battery
- 6 and 7 for direct current (DC)

Otherwise, these pins will short-circuit.

#### Voltage equalization - grounding

- Different grounds can be balanced via jumpers with protective ground.
- A line (shielding, potential equalization) with protective ground must only be connected in one place.
- For further instructions, please see the operating manual.

**Contacts**

**Inputs**

The analog inputs can be used as digital or analog contacts. For analog use, resistance values can be specified to check for cable breaks and short-circuits.

**Relay outputs**

The relay outputs offer the following functions:

- The outputs can operate with potential free contacts for external power supply (dry mode).
- The outputs can operate using the internal voltage of power supply (wet mode).
- Only ohm resistive loads can be connected to the relay.
- Inductive loads must be bypassed via recovery diodes. These diodes (IN4004) are enclosed.

**General instructions**

- All access equipment should be mounted within a "secured area".
- Detailed connection conditions are specified in the operating manual!
- After purchase, primary AC power must be carried out by a licensed electrician.

**Technical Specifications**

Hardware	16 or 8 or null relay outputs - with ohm load: - max. switching voltage: 30 V DC - max. switching current: 1,25 A
	16 or 8 analog inputs
	Tamper switch
Temperature	0°C to +45°C (32° F to 113° F)
Power supply	- 10 or 30 V DC, max. 60 VA Available for external devices: 55 VA - or via the AMC2
Protection class	IP 30
Housing	Base: PPO (UL 94 V-0) Upper: Polycarbonate (UL 94 V-0)
Color	White
Dimensions	WxHxD: 232 x 90 x 46 mm (9.13 x 3.54 x 1.81 in.)
Weight	Approx. 0.4 kg (0.88 lb)
Type	Rail mounting

**Ordering Information**

<b>AMC2 8I-80-EXT</b> 8 input/output extension board, up to three per AMC, can be combined with the AMC2 16I-EXT and the AMC2 16I-160-EXT	<b>API-AMC2-8IOE</b>
<b>AMC2 16I-160-EXT</b> 16 input/output extension board, up to three per AMC, can be combined with the AMC2 16I-EXT and the AMC2 8I-80-EXT	<b>API-AMC2-16IOE</b>
<b>AMC2 16I-EXT</b> 16 input extension board, up to three per AMC, can be combined with the AMC2 16I-160-EXT and the AMC2 8I-80-EXT	<b>API-AMC2-16IE</b>

**Americas:**  
Bosch Security Systems, Inc.  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
security.sales@us.bosch.com  
www.boschsecurity.us

**Europe, Middle East, Africa:**  
Bosch Security Systems B.V.  
P.O. Box 80002  
5600 JB Eindhoven, The Netherlands  
Phone: + 31 40 2577 284  
Fax: +31 40 2577 330  
emea.securitysystems@bosch.com  
www.boschsecurity.com

**Asia-Pacific:**  
Robert Bosch (SEA) Pte Ltd, Security Systems  
11 Bishan Street 21  
Singapore 573943  
Phone: +65 6258 5511  
Fax: +65 6571 2698  
apr.securitysystems@bosch.com  
www.boschsecurity.com

**Represented by**